

ACCESS SERVICE

7. Special Access Service (Cont'd)7.1 General (Cont'd)7.1.2 Rate Categories(C) Channel Mileage

The Channel Mileage rate category provides for the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company Hub, between a serving wire center associated with a customer designated premises and an international boundary point, between a serving wire center associated with a customer designated premises and a WATS serving office, or between two Telephone Company Hubs. One Channel Mileage charge applies per mile of interoffice transport, calculated as described in 7.4.6, following.

(D) Optional Features and Functions

The Optional Features and Functions rate category provides for optional features and functions which may be added to a Special Access Service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, it will be charged for as a single rate element.

Certain material on this page previously appeared on 6th Revised Page 235.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

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7. Special Access Service (Cont'd)7.1 General (Cont'd)7.1.2 Rate Categories (Cont'd)(D) Optional Features and Functions (Cont'd)

Examples of Optional Features and Functions that are available include, but are not limited to, the following:

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

A Hub is a Telephone Company designated serving wire center at which bridging, multiplexing or cross-connection functions are performed. The bridging functions performed are to connect three or more customer designated premises in a multipoint arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth. Hubs for multiplexing may be designated as Intermediate or Terminus Hubs as set forth in 2.6 preceding. The cross-connection functions provide for the connection of two digital services of the same bit rate at Fiber Hub locations set forth in 7.4.10, following.

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Descriptions for each of the available Optional Features and Functions are set forth in 7.2 following.

7.1.3 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint service.

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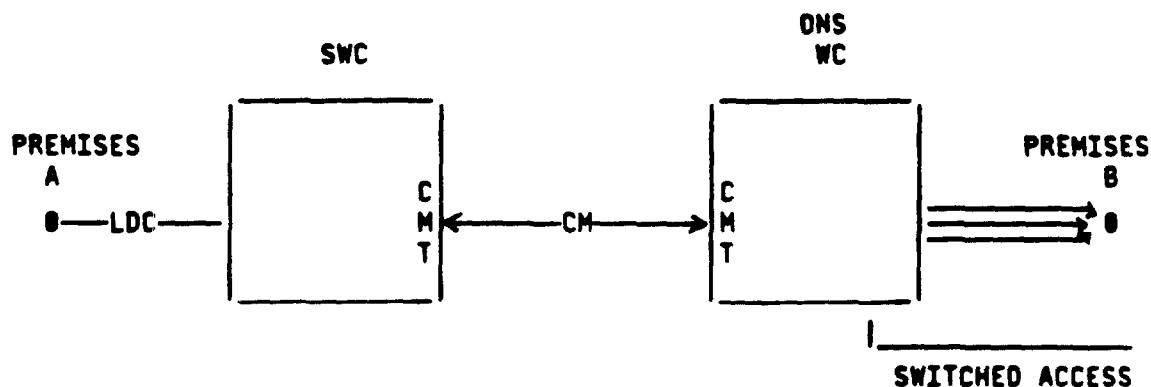
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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE

7. Special Access Service (Cont'd)7.1 General (Cont'd)7.1.3 Service Configurations (Cont'd)(A) Two-Point Service (Cont'd)

The following diagram depicts a Dedicated Access Line Service where the other network service (e.g., WATS) serving office is 10 miles from serving wire center of the customer designated premises.



LDC - Local Distribution Channel
CMT - Channel Mileage Termination
CM - Channel Mileage
SWC - Serving Wire Center
ONS - Other Network Service Wire Center (e.g., WATS)

Applicable rate elements are:

- Local Distribution Channel (one applicable)
- Channel Mileage Termination (two applicable)
- Channel Mileage (10 miles)
- Switched Access (see Section 6)

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

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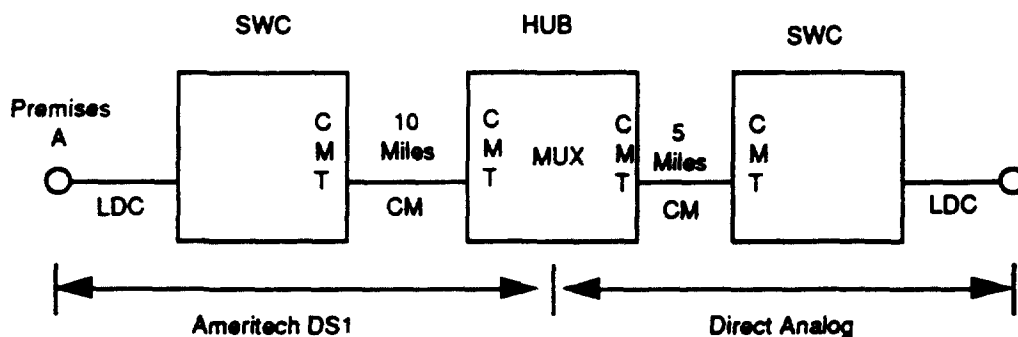
7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configuration (Cont'd)

(A) Two-Point Service (Cont'd)

The following diagram depicts a two-point service, with Premises A served by Ameritech DS1 Service and Premises B served by Direct Analog Service, multiplexed at an Intermediate Hub located 10 miles from the serving wire center for Premises A and 5 miles from the serving wire center for Premises B.



LDC - Local Distribution Channel
CMT - Channel Mileage Termination
CM - Channel Mileage
MUX - DS1 to Voice Multiplexing
SWC - Serving Wire Center

Applicable rate elements are:

- Local Distribution Channel
1 Ameritech DS1
1 Direct Analog
- Channel Mileage Termination
2 Ameritech DS1
2 Direct Analog
- Channel Mileage
10 Ameritech DS1
5 Direct Analog
- Multiplexing
1 Ameritech DS1 to Voice/Base Rate

(TR706)

ACCESS SERVICE

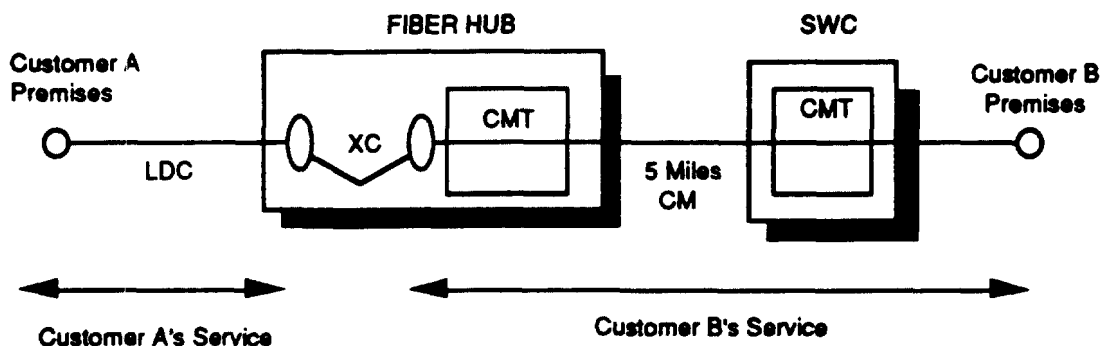
7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configuration (Cont'd)

(A) Two-Point Service (Cont'd)

The following diagram depicts two two-point Ameritech DS3 Services cross-connected at a Fiber Hub. The first Ameritech DS3 Service connects Customer A's designated premises to the Fiber Hub. The second Ameritech DS3 Service connects Customer B's designated premises to the Fiber Hub.



CM - Channel Mileage
CMT - Channel Mileage Termination
LDC - Local Distribution Channel
SWC - Serving Wire Center
XC - Cross-Connection

Applicable rate elements are:

Local Distribution Channel - Customer A
Local Distribution Channel - Customer B
Cross-Connection - Ameritech DS3 to Ameritech DS3
5 Miles Channel Mileage - Customer B
2 Channel Mileage Terminations - Customer B

The Ameritech DS3 to Ameritech DS3 Cross-Connection may be ordered by either customer, with authorization from the other customer to make the connection of the two services.

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Assistant Vice President, 4F08
2000 W. Ameritech Center Drive
Hoffman Estates, Illinois 60196-1025

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7. Special Access Service (Cont'd)7.1 General (Cont'd)7.1.3 Service Configurations (Cont'd)(B) Multipoint Service

Multipoint service connects three or more customer designated premises through a Telephone Company Hub. There is no limitation on the number of mid-links available with multipoint service. However, when more than three mid-links are provided in tandem, the quality of the service may be degraded. A mid-link is a channel between Hubs (i.e., bridging locations). Only certain types of Special Access Service are provided as multipoint service. These are so designated in the Service Descriptions set forth in 7.2 following.

Multipoint service utilizing a customized technical specifications package as set forth in 7.2 following will be provided when technically possible. If the Telephone Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

When ordering, the customer will specify the desired bridging Hub(s) selected from the National Exchange Carrier Association Tariff F.C.C. NO. 4. This tariff identifies the type(s) of bridging functions which are available and the serving wire centers where they are available.

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Applicable Rate Elements are:

- Local Distribution Channels (one per customer designated premises)
- Channel Mileage Termination (one per end of Channel Mileage)
- Channel Mileage (as applicable between each designated customer premises and the Hub and between Hubs.)
- Bridging
- Additional Optional Features (when applicable).

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In addition, the Special Access Surcharge as set forth in 7.4.2 following and a Message Station Equipment Recovery Charge as set forth in 7.4.3 following may be applicable.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

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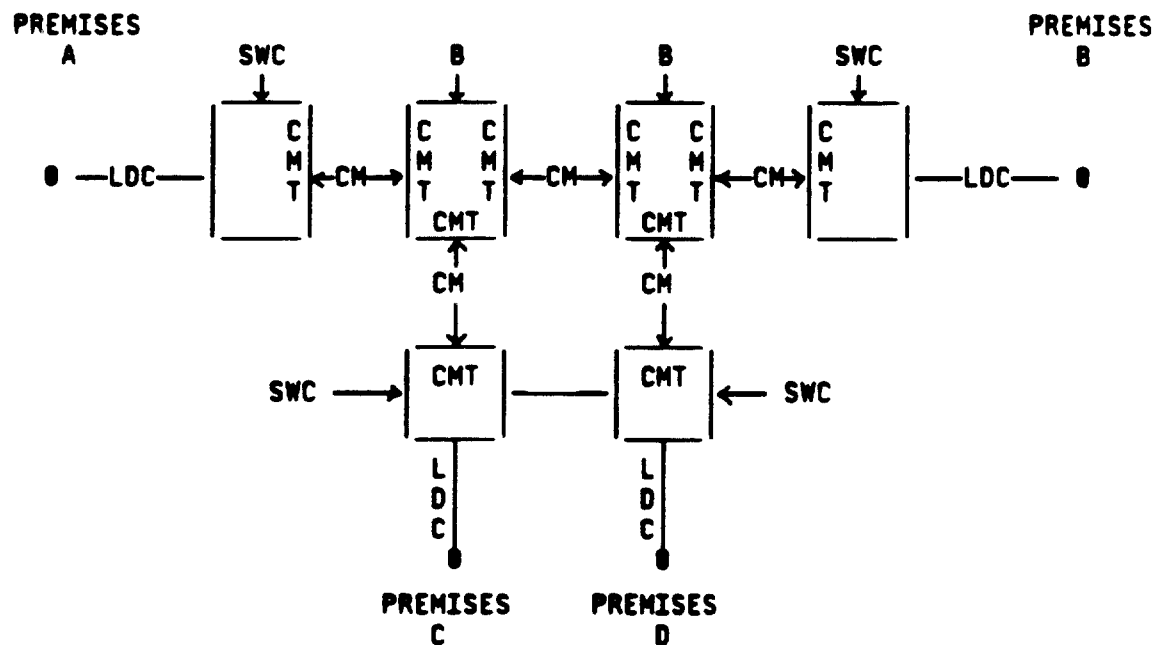
7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service (Cont'd)

Example: Direct Analog Service multipoint service connecting four customer premises via two customer specified bridging hubs.



LDC - LOCAL DISTRIBUTION CHANNEL
CMT - CHANNEL MILEAGE TERMINATION
CM - CHANNEL MILEAGE
B - BRIDGING
SWC - SERVING WIRE CENTER

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Applicable rate elements are:

- Local Distribution Channels (four applicable)
- Channel Mileage Terminations (ten applicable)
- Channel Mileage (for appropriate mileages)
- Bridging (six applicable, i.e., each bridge port)

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

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7. Special Access Service (Cont'd)7.1 General (Cont'd)7.1.4 Alternate Use

Alternate Use occurs when a service is arranged by the Telephone Company so that the customer can select different types of transmission at different times. A customer may use a service in any privately beneficial manner. However, where technical or engineering changes are required to effectuate an alternate use, the Telephone Company will make such special arrangements available on an individual case basis.

The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12., Specialized Service or Arrangements. The customer will pay the stated tariff rates for the Access Service rate elements for the service ordered (i.e., Local Distribution Channels, Channel Mileage Terminations and Channel Mileage (as applicable) and Optional Features (if any)).

7.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access Service be specially routed. The regulations, rates and charges for Special Facilities Routing are set forth in 11. following.

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7.1.6 Design Layout Report

At the request of the customer, the Telephone Company will provide to the customer the make-up of the facilities and services provided under this tariff as Special Access Service to aid the customer in designing its overall service. This information will be provided in the form of a Design Layout Report. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever these facilities are materially changed.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE**7. Special Access Service (Cont'd)****7.1 General (Cont'd)****7.1.7 Acceptance Testing**

At no additional charge, the Telephone Company will, at the customer's request, cooperatively test, at the time of installation, the following parameters:

- (A) For Direct Analog Services, acceptance tests will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise and C-message noise when these parameters are applicable and specified in the order for service. Additionally, for Direct Analog Services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.
- (B) For other analog services (i.e., Metallic, Telegraph, Program Audio, Video, Wideband Analog*, Wideband Data* and Dedicated Access Line) and for digital services (i.e., Direct Digital Service and Ameritech Base Rate, DS1 and DS3 Services), acceptance tests will include tests for the parameters specified in the order for service.

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In addition to the above tests, Additional Cooperative Acceptance Testing for Direct Analog Service to test other parameters. As described in 13.3.4(B) following, is available at the customer's request. All test results will be made available to the customer upon request.

7.1.8 Ordering Options and Conditions

Special Access Service is ordered under the Access Order Provisions set forth in 5. preceding. Also included in that section are other charges which may be associated with ordering Special Access Service (e.g., Service Date Change Charges, Cancellation Charges, etc.)

7.1.9 Trouble Reporting

The Telephone Company will be responsible for receiving, from customers, trouble reports sectionalized to Telephone Company facilities and/or equipment. The Telephone Company will test cooperatively or independently to assist in trouble sectionalization. Other charges as described in this tariff will still apply.

* Wideband Analog and Wideband Data Services are limited to circuits in place as of August 11, 1988.

(TR783)

ACCESS SERVICE**7. Special Access Service (Cont'd)****7.2 Service Descriptions**

For the purposes of ordering, the categories of Special Access Service are:

Metallic (MT)
Telegraph Grade (TG)
Direct Analog Service (VG)
Dedicated Access Line (DAL)
Program Audio (AP)
Video (TV)
Wideband Analog (WA)*
Wideband Data (WD)*
Direct Digital Service (DDS)
Ameritech DS1 Service (HC1) (HX)
Ameritech DS3 Service (HC3)
Ameritech Base Rate Services (DA1 to DA6)
Ameritech OC-3 Service (HO3)
Ameritech OC-12 Service (HO12)
Ameritech OC-48 Service (HO48)

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Each service consists of a basic channel to which a technical specifications package (customized or predefined), network channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Each of the components of the service are described in this section.

Customized technical specifications packages will be provided where technically feasible. If the Telephone Company determines that the requested parameter specifications are not compatible, the customer will be advised and given the opportunity to change the order.

When a customized channel is ordered, the customer will be notified whether Additional Engineering Charges apply. In such cases, the customer will be given an estimate of the hours and charges to be billed before any further action is taken on the order.

The channel description (NC code) specifies the characteristics of the basic channel and indicates whether the channel is provided between customer designated premises or between a customer designated premises and a Telephone Company Hub where bridging, cross-connection or multiplexing functions are performed.

* Wideband Analog and Wideband Data Services are limited to circuits in place as of August 11, 1988.

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ACCESS SERVICE**7. Special Access Service (Cont'd)****7.2 Service Descriptions (Cont'd)**

Information contained in the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in a matrix with the transmission parameters listed down the left side and the packages listed across the top. Each package is identified by a code, e.g., VGC. the first two letters of the code indicate the category of Special Access Service to which the parameters are applicable. These two letter codes are shown above in parentheses following the category of Special Access Service. The letter "C" following the two letter code indicates the technical specifications package for a customized service. A numeric or alpha-numeric designation following the two letter code indicates the specific predefined package. For a customized service, the customer may select any parameters available with that category of service as long as the parameters are compatible. When appropriate, the Technical Reference which contains detailed specifications for the parameters is shown following the matrix.

Network channel interfaces at each point of termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical. However, communications can only be provided between points of termination with compatible network channel interfaces. Only certain network channel interfaces are compatible. These are set forth in 7.3 following in a combination format. T

Only certain network channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth at the end of this 7.2. When a customized channel is requested, all network channel interface combinations available with the specified type of service are available.

The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in a matrix with the optional feature or function listed down the left side and the technical specifications package listed across the top.

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7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

The Telephone Company will maintain existing transmission specifications on services installed prior to the effective date of this tariff, except that the existing services with performance specifications exceeding the standard listed in this provision will be maintained at the performance levels specified in this tariff. All services installed after the effective date of this tariff will conform to the transmission specification or standards contained in this tariff or in the following Technical References for each category of service:

Metallic	TR-NPL-000336
Telegraph Grade	TR-NPL-000336
Direct Analog Service	*TR-NPL-000335
	*PUB 41004, Table 4
Dedicated Access Line	TR-NPL-000334
Program Audio	TR-NPL-000337
Video	TR-NPL-000338
	TR-ENG-000121
Wideband Analog**	TR-NPL-000339
Wideband Data**	TR-NPL-000340
Direct Digital Service	TR-NPL-000341
	*PUB 62310
Secondary Channel	*TR-NPL-000157
Ameritech Base Rate	
Services	*TR-NPL-000341
	AM-TR-OAT-000070
DAL	AM-TR-NPL-000005
Secondary Channel	*TR-NPL-000157
Ameritech DS1 Service	TR-INS-000342
	*PUB 62411
	AM-TR-TMO-000106
	AM-TR-TMO-000101

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- * In these publications, Direct Analog Service is referred to as Voice Grade Service, Direct Digital Service and Ameritech Base Rate Service as Digital Data Service, and Ameritech DS1 Service and Ameritech DS3 Service as High Capacity Service.
- ** Wideband Analog and Wideband Data Services are limited to circuits in place as of August 11, 1988.

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Director, Federal Regulatory, 4F20
2000 W. Ameritech Center Drive
Hoffman Estates, Illinois 60196-1025

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

Clear Channel Capability	*TR-NPL-000054
Ameritech DS3 Service	TR-INS-000342
	AM-TR-TMO-000101
Optical Interface	AM-TR-TMO-000072
Ameritech OC-3 Service,	AM-TR-NIS-000111
Ameritech OC-12 Service and	AM-TR-TMO-000101
Ameritech OC-48 Service	

7.2.1 Metallic Service

(A) Basic Channel Description

A Metallic channel is an unconditioned two-wire channel capable of transmitting low speed varying signals at rates up to 30 baud. This channel is provided by metallic or equivalent facilities. Metallic channels are provided between customer designated premises or between a customer designated premises and a Telephone Company Hub where bridging functions are performed. Interoffice metallic facilities will be limited in length to a total of five miles per channel, and be provided where facilities are available. Interoffice metallic facilities (wire pairs) are in diminishing supply, and can be expected to become less available as optical fiber is deployed and wire cables are removed.

- * In these publications, Direct Analog Service is referred to as Voice Grade Service, Direct Digital Service and Ameritech Base Rate Service as Digital Data Service, and Ameritech DS1 Service and Ameritech DS3 Service as High Capacity Service.

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Director, Federal Regulatory Planning & Policy, 4G62
2000 W. Ameritech Center Drive
Hoffman Estates, Illinois 60196-1025

ACCESS SERVICE**7. Special Access Service (Cont'd)****7.2 Service Descriptions (Cont'd)****7.2.1 Metallic Service (Cont'd)****(B) Technical Specifications Packages**

Parameter	C	Package MT		
		1	2	3
DC Resistance				
Between Conductors	X	X	X	
Loop Resistance	X			X
Shunt Capacitance	X			X

The technical specifications are delineated in Technical Reference TR-NPL-000336.

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(C) Network Channel Interfaces

Compatible network channel interfaces are set forth in 7.3.5(A) following.

(D) Optional Features and Functions**(1) Central Office Bridging Capability**

(a) **Three Premises Bridging** - Provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a third customer designated premises.

(b) **Series Bridging** of up to 26 customer designated premises.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package MT-			
	C	1	2	3
Three Premises Bridging	X	X		X
Series Bridging	X		X	

ACCESS SERVICE**7. Special Access Service (Cont'd)****7.2 Service Descriptions (Cont'd)****7.2.2 Telegraph Grade Service****(A) Basic Channel Description**

A Telegraph Grade Channel is an unconditioned channel capable of transmitting binary signals at rates of 0-75 baud or 0-150 baud. This channel is furnished for half-duplex or duplex operation. Telegraph Grade channels are provided between customer designated premises or between a customer designated premises and a Telephone Company Hub.

(B) Technical Specifications Packages

Parameter	Package TG -		
	C	1	2
Telegraph Distortion	X	X	X

The technical specifications are delineated in Technical Reference TR-NPL-000336.

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(C) Network Channel Interfaces

Compatible network channel interfaces are set forth in 7.3.5(B) following.

(D) Optional Features and Functions**(1) Telegraph Bridging (two-wire and four-wire)**

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specification Package TG-		
	C	1	2
Telegraph Bridging	X	X	X

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7. Special Access Service (Cont'd)7.2 Service Descriptions (Cont'd)7.2.3 Direct Analog Service *(A) Basic Channel Description

(1) A Direct Analog Service channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. Direct Analog Service channels are provided between customer designated premises or between a customer designated premises and a Telephone Company Hub.

(2) Direct Analog Service may be ordered to allow connections between the customer designated premises and wire center which provides Other Network Services.

(a) Dedicated Access Line (DAL)

A Dedicated Access Line Service provides a channel for voice frequency transmission capability. The service provides a connection between the customer designated premises and a WATS serving office associated with the closed end of 800 Service, WATS or similar services. It is provided for use with Switched Access Service as set forth in Section 6 preceding, or as set forth in the intrastate Access Service tariff and/or local general services tariff of the Telephone Company. Switched access traffic delivered by means of a Dedicated Access Line is subject to Switched Access Service provisions of the applicable tariff. The jurisdiction of the Switched Access Service shall be determined as set forth in 2.3.10(E) preceding.

The choice of the type of signaling is at the option of the customer and subject to the technical limitations identified in the Technical Reference TR-NPL-000334. Dedicated Access Line Service is provided as an effective two-wire or an effective four-wire transmission path.

* Also referred to as Voice Grade Service in Technical References.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE

7. Special Access Service (Cont'd)7.2 Service Descriptions (Cont'd)7.2.3 Direct Analog Service (Cont'd)

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(B) Technical Specifications Packages

	Package VG-												
Parameter	C*	1	2	3	4	5	6	7	8	9	10	11	12
Attenuation													
Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X
Echo Control	X	X	X	X		X		X	X			X	X
Envelope Delay													
Distortion	X						X	X	X	X	X	X	X
Frequency Shift	X						X	X	X	X	X	X	
Impulse Noise	X					X	X	X	X	X	X	X	X
Intermodulation													
Distortion	X						X	X	X	X	X	X	
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain Hits, and Dropouts	X												
Phase Jitter	X						X	X	X	X	X	X	
Signal-to-C-Message Noise					X								
Signal-to-C-Notch Noise	X					X	X	X	X	X	X	X	X

Package DAL

Parameters	1	2
Attenuation Distortion	X	X
C-Message Noise	X	X
Echo Control	X	X
Envelope Delay	X	X
Distortion		
Frequency Shift	X	X
Impulse Noise	X	X
Intermodulation	X	X
Distortion		
Loss Deviation	X	X
Phase Jitter	X	X
Signal-to-C-Notch Noise	X	X

* The desired parameters are selected by the customer from the list of available parameters.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

7.2.3 Direct Analog Service (Cont'd)

(B) Technical Specifications Packages (Cont'd)

The technical specifications for these parameters (except for dropouts, gain hits, and phase hits) are delineated in Technical Reference TR-NPL-000334 and TR-NPL-000335. The technical specifications for dropouts, phase hits, and gain hits are delineated in Technical Reference PUB 41004, Table 4.

(C) Network Channel Interfaces

The following network channel interfaces for Direct Analog Service do not require signaling capability: AH, DA, DB, DD, DE, DS, NO, PR and TF.

The following network channel interfaces for Direct Analog Service require signaling capability: AB, AC, CT, DX, DY, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF.

The following interfaces are available with DAL Service: LO, LS, DS, GO, GS, EA, EB, RV.

Compatible network channel interfaces are set forth in 7.3.5.(C) following.

(D) Optional Features and Functions

(1) Central Office Bridging Capability

- (a) Voice and DAL Bridging (two-wire and four-wire)
- (b) Data Bridging (two-wire and four-wire)
- (c) Telephoto Bridging (two-wire and four-wire)
- (d) Dataphone Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports
- (e) Telemetry and Alarm Bridging

Split Band, Active Bridging
Passive Bridging
Summation, Active Bridging

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7. Special Access Service (Cont'd)7.2 Service Descriptions (Cont'd)7.2.3 Direct Analog Service (Cont'd)

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(D) Optional Features and Functions (Cont'd)(2) Central Office Multiplexing

Voice to telegraph grade: An arrangement that converts a Direct Analog channel to Telegraph Grade channels using frequency division multiplexing.

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(3) Conditioning

Conditioning provides more specific transmission characteristics for Direct Analog Service. C-Type conditioning controls attenuation distortion and envelope delay distortion. Sealing Current helps maintain continuity on dry metallic loops.

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In addition, a customer may desire that either the attenuation distortion or the envelope delay distortion, or both, be improved to more stringent specifications than those provided with C-Type conditioning. In such cases the customer has the option of ordering Improved Attenuation Distortion and Improved Envelope Delay Distortion, either separately or in combination, in lieu of C-Type conditioning. When either improved option (Improved Attenuation Distortion or Improved Envelope Delay Distortion) is ordered without the other, the performance specifications for the other parameter will be those provided with C-Type conditioning at no additional charge.

For two-point services, the parameters apply to each service. For multipoint services, the parameters apply to each mid-link or end-link. C-Type conditioning and Data Capability may be combined on the same service.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

7.2.3 Direct Analog Service (Cont'd)

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(D) Optional Features and Functions (Cont'd)

(3) Conditioning (Cont'd)

(a) C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion and envelope delay distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are as set forth in the Technical References specified in 7.2.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

7.2.3 Direct Analog Service (Cont'd)

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(D) Optional Features and Functions (Cont'd)

(3) Conditioning (Cont'd)

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Service Descriptions (Cont'd)

7.2.3 Direct Analog Service (Cont'd)

(D) Optional Features and Functions (Cont'd)

(3) Conditioning (Cont'd)

(b) Improved Attenuation Distortion

Improved attenuation distortion is provided for additional control of attenuation distortion, and is provided in lieu of C-Type conditioning. The improved attenuation distortion specifications are as set forth in the Technical Reference specified in 7.2.

(c) Improved Envelope Delay Distortion

Improved envelope delay distortion is provided for additional control of envelope delay distortion, and is provided in lieu of C-Type conditioning. The improved envelope delay distortion specifications are as set forth in the Technical Reference specified in 7.2.

(d) Sealing Current Conditioning

Sealing Current Conditioning is provided to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type network channel interfaces.

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE**7. Special Access Service (Cont'd)****7.2 Service Descriptions (Cont'd)****7.2.3 Direct Analog Service (Cont'd)****(D) Optional Features and Functions (Cont'd)****(4) Customer Specified Premises Receive Level**

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range delineated in Technical Reference TR-NPL-000335 and associated Addendum.

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(5) Improved Termination

On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Termination parameters are delineated in Technical Reference TR-NPL-000335.

(6) Improved Return Loss

On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-NPL-000335.

(7) Data Capability

Data Capability provides transmission characteristics suitable for data communications. Specifically, Data Capability provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or multipoint services.

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7. Special Access Service (Cont'd)7.2 Service Descriptions (Cont'd)7.2.3 Direct Analog Service (Cont'd)(D) Optional Features and Functions (Cont'd)(7) Data Capability (Cont'd) T

The Signal to C-Notched Noise Ratio and intermodulation distortion parameters for Data Capability are:

- Signal to C-Notched Noise Ratio is equal to or greater than 32dB
- Intermodulation distortion:
 - Signal to second order modulation products (R2) is equal to or greater than 38dB
 - Signal to third order modulation products (R3) is equal to or greater than 42dB

When a service equipped with Data Capability is used for voice communications, the quality of the voice transmission may not be satisfactory.

(8) Telephoto Capability T

Telephoto Capability provides transmission characteristics suitable for telephotographic communications. Specifically Telephoto Capability is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are:

Attenuation DistortionEnvelope Delay Distortion

(1004Hz Reference)

<u>Frequency Range (Hz)</u>	<u>Variation (dB)</u>	<u>Frequency Range (Hz)</u>	<u>Variation (mcs)</u>
504-3004	-0.5 to +1.5	1004-2604	110
304-3204	-1.0 to +2.5	804-2804	180

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Assistant Vice President
10 S. Wacker Drive, Floor 22
Chicago, Illinois 60606

ACCESS SERVICE

7. Special Access Services (Cont'd)7.2 Service Descriptions (Cont'd)7.2.3 Direct Analog Service (Cont'd)(D) Optional Features and Functions (Cont'd)(9) Signaling Capability T

Signaling Capability provides for the process by which one customer premises alerts another customer premises on the same service with which it wishes to communicate.

(10) Code Select Signaling Arrangement T

An arrangement that permits code selective ringing for up to ten codes on a multipoint service.

(11) Transfer Arrangement T

An arrangement that affords the customer an additional measure of flexibility in the use of their access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to another channel that terminates in either the same or a different customer premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option.

(12) DAL Options T(a) DAL Improved Voice Transmission T

(i) Improved two-wire voice transmission specifications (specifications are set forth in Technical Reference TR-NPL-000334). T

(ii) Improved four-wire voice transmission with E&M Lead Interface Specifications. T

(b) Other Options T

Certain other options associated with DAL services are either Line Termination or Common Switching optional features as defined in Section 6 preceding. T

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